Claims

1. Method for reporting at least one dropped-out connection
path of a first network node to a second network node of a
packet switching communication network featuring one or more
5   network nodes, in which at least one network node is a
destination network node which is connected in each case by at
least one connection path with at least the first and the
second network node, with these nodes being connected to one
another by a further connection path and that a routing table
10   is contained in the network node in each case and in the
routing table of the first network node the direct connection
path from the first network node to the destination network
node is entered as the primary routing path and the path
leading from the first network node via the second network node
15   to the destination network node is entered as the alternate
routing path and correspondingly in the routing table of the
second network node the direct connection path from the second
network node to the destination node is entered as the primary
routing path and the path leading from the second network node
20   via the first network node to the destination network node is
entered as the alternate routing path, and the relevant
alternate routing paths are only used if there is a fault on
the primary routing path,
c h a r a c t e r i z e d i n t h a t,
25   a fault on the primary connection path present between the
first network node and the destination network node is reported
by the first network node by a message directed to the second
network node which controls the second network node in such a
way as to prevent, on failure of its primary connection path
30   leading to the destination network node, a transfer of data
packets to the destination network node via the alternate
routing path which leads from the second network node via the
first network node to the target network node, and that in a

similar way the second network node, if there is a disruption to its primary connection path, issues a message and the first network node is controlled accordingly.

2. Method in accordance with claim 1,
5   c h a r a c t e r i z e d   i n   t h a t ,
the message is sent to the neighboring nodes immediately after the occurrence of the fault on the primary connection path.

3. Method in accordance with one of the previous claims.
c h a r a c t e r i z e d   i n   t h a t ,
10 the message is transferred cyclically for as long as the fault lasts on the primary connection path.

4. Method in accordance with one of the previous claims.
c h a r a c t e r i z e d   i n   t h a t ,
a message is transferred to its neighboring nodes at the start
15 of a fault and a message at the end of a fault on the primary connection path of a network node.

5. Method in accordance with one of the previous claims.
c h a r a c t e r i z e d   i n   t h a t ,
the fault is reported directly by a routing protocol.

20 6. Method in accordance with one of the previous claims.
c h a r a c t e r i z e d   i n   t h a t ,
a keep-alive message is expanded by at least one field in which the fault message to the neighboring node is entered and this keep-alive message is used for fault reporting.

25 7. Method in accordance with one of the previous claims.
c h a r a c t e r i z e d   i n   t h a t ,
for a fault on the primary connection path of a network node its network node identification number is used in the message and at least this is reported via the alternate routing path to
30 the neighboring node.

8. Method for reporting at least one dropped-out connection path of a first network node to a second network node of a packet switching communication network featuring one or more network nodes, in which at least one network node is a

5 destination network node which is connected in each case by at least one connection path with at least the first and the second network node, with these nodes being connected to one another by a further connection path and that a routing table is contained in the network node in each case and in the

10 routing table of the first network node the direct connection path from the first network node to the destination network node is entered as the primary routing path and the path leading from the first network node via the second network node to the destination network node is entered as the alternate

15 routing path and correspondingly in the routing table of the second network node the direct connection path from the second network node to the destination node is entered as the primary routing path and the path leading from the second network node via the first network node to the destination network node is

20 entered as the alternate routing path, and the relevant alternate routing paths are only used if there is a fault on the primary routing path,
c h a r a c t e r i z e d   i n   t h a t ,
the first network node in the error-free state transfers

25 messages cyclically to at least the second network node, which are absent if there is a fault on the primary connection path to the destination network node of the first network node, and that the second network node is controlled such that, in the absence of the messages from the first network node and on

30 failure of its primary connection path to the destination network node, a transfer of data packets to the destination network node via the alternate routing path, which leads from the second network node via the first network node to the

destination network node, is prevented, and that in a similar way the second network node does not issue any messages for a fault on its primary connection path and the first network node is controlled accordingly.

5 9. Network node for a communication network featuring a number of network nodes,
characterized in that,
it can be operated using a method in accordance with one of the previous claims.